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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,895	06/22/2006	Yang-Soo Park	4555-0111PUS1	1739
2292 7590 04/21/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
CHRISS, JENNIFER A				
ART UNIT		PAPER NUMBER		
1786				
NOTIFICATION DATE		DELIVERY MODE		
04/21/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/583,895

Applicant(s)

PARK ET AL.

Examiner

JENNIFER A. CHRISS

Art Unit

1786

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1.4.11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1.4.11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed February 19, 2010, have been entered and have been carefully considered. The amendments to the Specification are entered as they introduce no new matter. Claim 1 is amended, claims 2 - 3 and 5 - 10 are cancelled, claims 11 - 12 are added and claims 1, 4 and 11 - 12 are pending. In view of Applicant's amendment to claim 1, the Examiner withdraws the claim objection as detailed in the Office Action dated October 19, 2009. Additionally, in view of Applicant's amendments to claim 1 and cancellation of claim 3, the Examiner withdraws the 35 USC 112, 2nd paragraph rejections as detailed in the Office Action dated October 19, 2009. In view of Applicant's incorporation of claim 2 into claim 1, the Examiner withdraws the rejection over Shibata et al. (US 5,215,816) as detailed in the Office Action dated October 19, 2009. The invention as currently claimed is not found to be patentable for reasons herein below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Priority

3. The Examiner acknowledges Applicant's request to retrieve an electronic copy of the priority application. However, the copy has not been received. As noted on the request, the Applicant remains ultimately responsible for the submission of the certified copy of the foreign application before the U.S. Application issues as a patent.

4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 12/26/03. It is noted, however, that applicant has not filed a certified copy of the 10-2003-0097275 application as required by 35 U.S.C. 119(b).

Claim Objections

5. Claim 11 is objected to because of the following informalities: claim 11 depends from itself. The Examiner assumes this is a typo and will interpret the claim as dependent upon claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. Claims 1, 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (WO 03/087447).

Lee et al. is directed to a textured yarn with different shrinkage and excellent suede effect (Title) useful for apparel yarns (page 35, lines 1 - 12).

Lee et al. teach creating a yarn with different shrinkage by air-texturizing an effect yarn and a core yarn, wherein at least one or two kinds of two-component composite yarn having a monofilament fineness of 0.001 to 0.3 after dividing or extracting an extraction component is used as the effect yarn and a thermoplastic multifilament yarn is used as the core yarn (page 7, lines 9 - 16). The shrinkage of the multifilament yarn or core yarn is preferably 5 - 50% (page 9, lines 14 - 18) and is made of polyester (page 9, lines 25 - 26 and page 10, lines 1 - 5). The effect yarn is also polyester (page 11, lines 1 - 20) and the shrinkage rate of the effect yarn is lower than

15% (page 12, lines 1 - 5). The two component composite yarn can be false twisted (page 12, lines 18 - 23). The yarn is used as the warp and/or weft of a woven fabric (page 20, lines 1 - 5) and can be subjected to a fiber raising or buffing process (page 20, lines 5 - 10) which the Examiner equates to Applicant's "cross-linking/friction material" process.

Lee et al. teach the claimed invention but fail to teach that the sum of the warp and weft is 220 – 320 yarns/inch, the warp density is 150 – 210 yarns/inch, the weft density is 70 - 110 yarns/inch, the thickness of the fabric is less than 0.3 mm and the weight of the fabric is 70 – 180 gsm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the warp density, weft density, the sum of the two, thickness and weight of the fabric since it has been held that, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). The burden is upon the Applicant to demonstrate that the claimed warp density, weft density, sum of the two, thickness and weight are critical and has unexpected results. In the present invention, one would have been motivated to optimize the warp density, weft density, the sum of warp and weft, thickness and weight motivated by the desire to create a textured fabric having the desired level of durability and air permeability based on the final specifications.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (WO 03/087447) in view of Understanding Textiles by Tortora et al.

Lee et al. teaches a textured yarn with different shrinkage and excellent suede effect (Title) useful for apparel yarns (page 35, lines 1 - 12).

Lee fail to teach that the plain weave or twill weave has a short-repeat interval of at least one selected from the group consisting of 2UP 1DOWN, 1UP2DOWN, 2UP2DOWN, 3UP 1 DOWN AND 1UP 3DOWN.

Understanding Textiles discusses various common weave patterns including their properties and typical uses. Specifically, twill fabrics are readily identified by diagonal lines that the weave creates on the surface of the fabric. Twill fabrics are usually strong and durable while at the same time they are supple and drape well making them suitable for apparel fabrics. Some examples of typical twills are 2/1, 2/2 and 3/2. (pages 269 - 277).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use one of 2/1, 2/2, etc. twill pattern to create the fabric of Lee et al. motivated by the desire to create a fabric suitable for apparel which is strong and durable while being supple and having good drape.

Response to Arguments

8. Applicant's arguments filed February 19, 2010 have been fully considered but they are not persuasive.

9. Applicant argues that the inventive cleansing polyester fabric is different from the fabric of Lee et al. since the inventive polyester fabric has no twisted point in the warp and weft whereas the warp and weft of the fabric of Lee et al. is composed of air textured yarn with a twisted point. It should be noted that Applicant's arguments are not commensurate in scope with the claimed invention. Claim 1 requires that the warp is a polyester multifilament consisting of ultra fine yarns or its false twist and the weft yarn is a false twisted multifilament polyester yarn consisting of ultra fine yarns. As noted in the rejection above, Lee et al. teach creating a yarn with different shrinkage by air-texturizing an effect yarn and a core yarn, wherein at least one or two kinds of two-component composite yarn having a monofilament fineness of 0.001 to 0.3 after dividing or extracting an extraction component is used as the effect yarn and a thermoplastic multifilament yarn is used as the core yarn (page 7, lines 9 - 16). The shrinkage of the multifilament yarn or core yarn is preferably 5 - 50% (page 9, lines 14 - 18) and is made of polyester (page 9, lines 25 - 26 and page 10, lines 1 - 5). The effect yarn is also polyester (page 11, lines 1 - 20) and the shrinkage rate of the effect yarn is lower than 15% (page 12, lines 1 - 5). *The two component composite yarn can be false twisted* (page 12, lines 18 - 23). The claims do not preclude a twisted yarn such as that taught by Lee. The rejection is maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A Chriss/
Primary Examiner, Art Unit 1786

/J. A. C./
Primary Examiner, Art Unit 1786